

INVASIVE INSPECTION

STREET
Houston TX, 77xxx



Age of home: 18 years
Size: 5,228 sqft

Last rain: 1 day
Inspector: Eduardo Cardenas CER #NACHI19080522



1. INTRODUCTION

1.1 PURPOSE: The purpose of this moisture inspection is to help assess the condition of the stucco system by looking for visible installation flaws, inadequate water diversion, and sealant failures. In addition, we will conduct random moisture readings using electronic moisture scan devices. Please note that the provision of a scope of work for remedial repairs is not the purpose of this inspection. Further investigation may be needed to determine the extent of water damage, if any, and how best to modify your home to address any moisture problems that may be indicated by this inspection.

1.2 SCOPE OF INSPECTION: This is a basic, stucco inspection limited to the following:

A visual examination of the condition of the stucco, exterior sealants, flashing, windows, doors, roof-to-stucco transitions, parapets, gutters, deck-to-building connections, stucco terminations and any penetrations through the stucco.

1.3 LIMITATIONS OF LIABILITY: Because this is a limited inspection, we can make no guarantee, express or implied, that our observations and random moisture readings offer conclusive evidence that no installation or moisture problems exist, or that problems found are all-inclusive. This inspection company, its employees and any divisions shall not be liable for non-visual defects, unseen defects, unspecified defects or hidden damage and conditions existing on the subject property and hereby disclaims any liability or responsibility thereof. All parties concerned agree to hold harmless and indemnify this inspection company involving any liabilities that may result.

1.4 FURTHER TESTING / INVESTIGATION: Our policy is to rely on moisture meter readings as an indicator of relative moisture values between different test spots, not as an absolute value of water content in the substrate. It is difficult to determine if the structural wood of the structure has been damaged in areas of high readings without 'probing' and/or removing a core sample of the stucco to allow for visual inspection. Should we feel that further investigation is needed this will be indicated in the summary section of the report.

1.5 REPAIR FOLLOW-UP AND ANNUAL INSPECTIONS: A repair follow-up inspection should be conducted within three months after completion of the repairs to assess the effectiveness of the moisture modifications. This is extremely important. Annual inspections should also be scheduled to ensure that your stucco system remains dry. This way any sealant failures, stucco cracks, etc. can be caught and repaired promptly. Testing and maintaining the structure on a regular basis is the best way to prevent costly repairs associated with moisture damage. Also, should you decide to sell the property, annual inspections and maintenance documentation will be a valuable selling tool, providing evidence to show



that your property has been inspected and maintained on a regular basis by a reputable and qualified firm.










TEST EQUIPMENT DESCRIPTION TEST RANGE SETTING			
Meter	Low	Medium	High
Pinless moisture meter	10 - 20	21 - 50	51 - 100
Delmorst Moisture Probe Meter BD-2100	6% - 15%	15%-17%	>17%
<p>The test equipment is used to help locate problem areas. It must be understood that the test equipment is not an exact science but rather good tools used as indicators of possible problems. At times, because of hidden construction within the wall cavity, the meters get false readings or no readings at all. Some meters will pick up on metals, wiring, unique wall finishes, etc. Positive readings do not always mean there is a problem, or do negative readings necessarily mean there is not a problem. We do not use the equipment to obtain exact moisture content, but rather to obtain relative readings between suspected problem areas and non problem areas. This information is then used to help determine potential problem areas which may warrant further investigation.</p>			



FRONT OF HOUSE



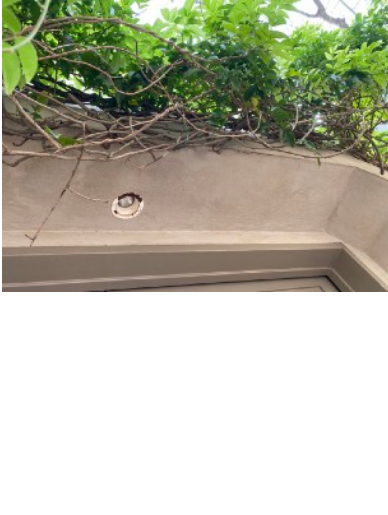





FRONT OF HOUSE

		Moisture reading	Substrate conditions	Comments	
1		Moisture	17.7%	Firm	Elevated moisture and or compromise substrate noted at time of inspection.
2		Moisture	10.8%	Firm	Acceptable values of moisture
3		Moisture	11.2%	Firm	Acceptable values of moisture
4		Moisture	12.8%	Firm	Acceptable values of moisture
		Caulk	Windows		Sealants at all window junctions have reached their life expectancy.
		Caulk	Transition		The brick/stucco termination(joint) sealants are improperly applied.
		Caulk	Penetration		The penetrations are not properly sealed(pipes, outlets, vents, anchors, rail systems etc)
		Cracks	Present		Cracking & staining noted at garage door
		Weep screed	Missing		House does not have a drainage relief at overhang (newer item not used at time of the houses original construction) no issues when probed and No repairs needed at this time



FRONT OF HOUSE








		
<p>Elevated moisture and or compromise substrate</p>	<p>Cracks present in garage section</p>	<p>No weep screed installed(drainage system)</p>
		
<p>Stains in front of the house</p>	<p>Sealants at all window junctions have reached their life expectancy.</p>	<p>Sealants at all window junctions have reached their life expectancy.</p>



SOUTH SIDE



SOUTH SIDE

			Moisture reading	Substrate condition s	Comments
1		Moisture	12.1%	Firm	Acceptable values of moisture
2		Moisture	14.2%	Firm	Acceptable values of moisture
3		Moisture	10.8%	Firm	Acceptable values of moisture
4		Moisture	11.2%	Firm	Acceptable values of moisture
		Caulk	Windows		Sealants at all window junctions have reached their life expectancy.
		Cauk	Penetration		The penetrations are not properly sealed(pipes, outlets, vents, anchors, rail systems etc)
		Cracks	Stucco		Cracking & staining noted in almost all south side wall



SOUTH SIDE



Low moisture values



Cracks and stains



Penetrations not sealed



Penetrations not sealed



Penetrations not sealed








Vent not sealed properly



NORTH SIDE



NORTH SIDE

		Moisture reading	Substrate conditions	Comments	
1		Moisture	9.6%	Firm	Acceptable values of moisture
		Caulk	Windows		Sealants at all window junctions have reached their life expectancy.
		Cauk	Penetration		The penetrations are not properly sealed(pipes, outlets, vents, anchors, rail systems etc)
		Cracks	Stucco		Cracking & staining noted
		Weep screed	Missing		House does not have a drainage relief at overhang (newer item not used at time of the houses original construction) no issues when probed and No repairs needed at this time



NORTH SIDE



Low moisture values



Missed drip edge flashing










Low moisture



EAST SIDE









EAST SIDE

			Moisture reading	Substrate condition s	Comments
1		Moisture	7.5%	Firm	Acceptable values of moisture
2		Moisture	9.4%	Firm	Acceptable values of moisture
3		Moisture	13%	Firm	Acceptable values of moisture
4		Moisture	12%	Firm	Acceptable values of moisture
		Caulk	Windows		Sealants at all window junctions have reached their life expectancy.
		Cauk	Penetration		The penetrations are not properly sealed(pipes, outlets, vents, anchors, rail systems etc)
		Cracks	Stucco		Cracking & staining noted

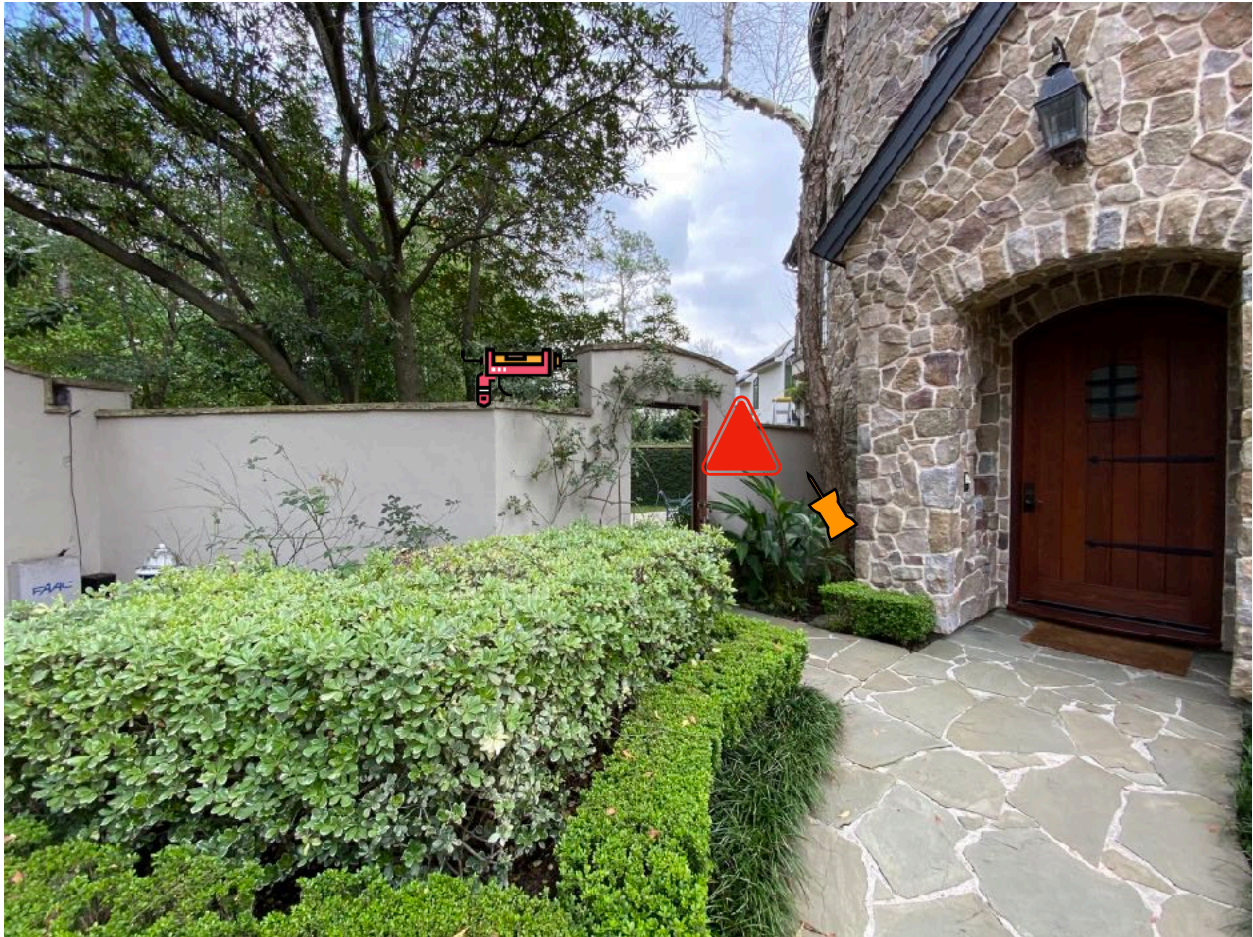


EAST SIDE




		
<p>Low moisture values</p>	<p>Cracks and stains</p>	<p>Penetrations not sealed</p>
		
<p>Penetrations not sealed</p>	<p>Cracks and stains</p>	<p>Vent not sealed properly</p>



FENCE



FENCE

		Moisture reading	Substrate conditions	Comments	
1		Moisture	17.5%	Firm	Elevated moisture and or compromise substrate noted at time of inspection.
		Caulk	Windows		Sealants not found
		Cracks	Stucco		Structural issues



SUMMARY

Overall House Health ★★★★★

STUCCO	FLASHING	SEALANT	PAINT	WEEP SCREED
★	★	★	★	★
Consistent texture but evident cracks and stains.	Flashing installation	Windows and penetrations sealants	Elastomeric paint is not present	No weep screed installed in all house



Conclusions

Substrate Damage – High Moisture

Substrate damage was found on this house and further framing damage may be present beyond the substrate. It is recommended that all areas noted not to have **“Firm” substrate (Including Semi-soft, Soft, or Deteriorated)** be opened up to verify the extent of any damage. It is also recommended that the condition be repaired accordingly to alleviate the moisture intrusion point and repair all damage materials. It is noted that core sampling of the areas that were noted in the report to have semi soft, soft or deteriorated is recommended to evaluate damage prior to removal of any large sections of stucco. Consult a qualified stucco waterproofing contractor to perform a core sample and/or to repair the damage where applicable. Refer to photos for locations.

High moisture readings were observed in the substrate behind the stucco at some areas, however at this point the substrate/sheathing was found to still in a firm condition. It is recommended that all areas above or around these areas be sealed by a qualified stucco waterproofing contractor to prevent moisture penetration and to have the stucco rechecked three months after sealing these areas.

Sealants

Many details and/or opening on this house lack adequate sealant. Windows, doors and penetrations through the exterior veneer system should be professionally sealed around the perimeters using a high quality, professional sealant (i.e., polyurethane). The sealant should be properly tooled into the joints to help prevent moisture intrusion and sealant separation. Stuko Inspections recommends that you consult with a stucco waterproofing contractor to seal all doors, windows, and penetrations as needed to avoid moisture penetration.

Cracking

It is recommend to seal all cracks throughout house. The exact reason for the crack(s) was not determined at time of inspection. Some typical reasons for cracking of stucco material are known to be improper installation procedures at the time of application and/or settlement in the structure of the house. The inspector recommends that you consult a qualified stucco waterproofing contractor to seal/repair these areas.

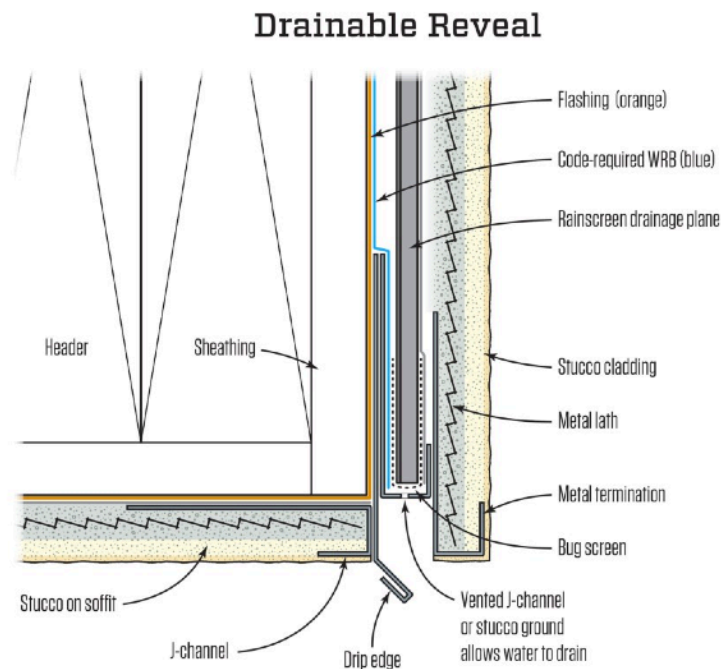


Bottom Of Walls

The flashing at the bottom of the stucco walls was observed to be weep screed flashing. A weep screed has holes in the bottom to allow moisture in the wall a path to exit the wall, rather than being kept inside the wall.

Overhangs

The stucco veneer on the front overhanging wall did not have a provision for a drainage plane to allow moisture a path to exit the stucco wall, as shown in the detail below, or a perforated bottom flashing detail to allow moisture to exit the stucco. It is noted that there were no adverse effects from not having this newer details when probed.



Painting

There was heavily stained areas at the rear of the house. Recommend cleaning repainting as needed.

